

# CHAPTER 4

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Chapter Test B

For use after Chapter 4

Decide whether the given ordered pair is a solution of the equation.

1.  $5x + 3y = 2$ ;  $(2, -\frac{4}{5})$

2.  $\frac{1}{2}x + 4 = 10y$ ;  $(2, \frac{1}{2})$

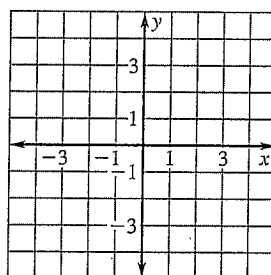
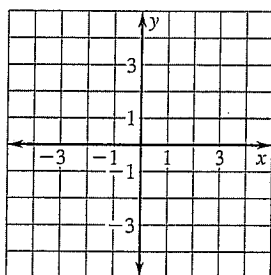
In Questions 3 and 4, use a table of values to graph the equation.

3.  $y = \frac{1}{4}x - 2$

4.  $y = 3x - \frac{1}{2}$

x			
y			

x			
y			



Find the x-intercept of the graph of the equation.

5.  $4x + 5y = 8$

6.  $3y - 10x = 4$

Find the y-intercept of the graph of the equation.

7.  $7 - 12x = 3y$

8.  $4y + 9 = 5x$

Find the slope of the line passing through the points.

9.  $(-4, 6), (-3, 2)$

10.  $(-10, -7), (1, -2)$

Find the value of  $y$  so that the line passing through the two points has the given slope.

11.  $(6, y), (3, 3), m = \frac{2}{3}$

12.  $(8, y), (2, -3), m = \frac{1}{2}$

13. In 1992, a software company had a profit of \$30,000,000. In 1998, the company had a profit of \$210,000,000. Find the average rate of change of the company's profit in dollars per year.

### Answers

1. \_\_\_\_\_
2. \_\_\_\_\_
3. Use grid at left.
4. Use grid at left.
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_

**Chapter Test B**

For use after Chapter 4

The variables  $x$  and  $y$  vary directly. Use the given values to write an equation that relates  $x$  and  $y$ .

14.  $x = -6, y = 42$

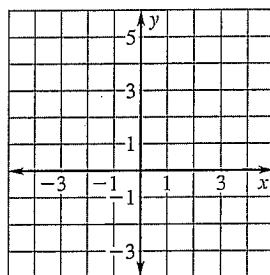
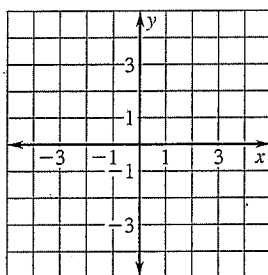
15.  $x = \frac{1}{2}, y = 18$

16. You rollerblade at an average speed of 8 miles per hour. The number of miles  $m$  you rollerblade during  $h$  hours is modeled by  $m = 8h$ . Do these two quantities have direct variation?

Write the equation in slope-intercept form. Then graph the equation.

17.  $6x - 4y = 3$

18.  $2y + 5x = 10$



Solve the equation algebraically.

19.  $7 - 4x = 5 + 6x$

20.  $\frac{3}{5}x + 4 = 10$

Decide whether the graphs of the two equations are parallel lines.

21.  $y = 3x + 2, y = \frac{1}{3}x + 4$

22.  $3y = 15x + 4, y = 5x + 1$

Evaluate the function when  $x = 3$ ,  $x = 0$ , and  $x = -2$ .

23.  $f(x) = -\frac{1}{2}x + 3$

24.  $h(x) = 5.5x + 4$

25.  $g(x) = \frac{1}{8}x - 4$

26.  $k(x) = 14 - 4x$

27. Find the slope of the graph of the linear function  $f$  with  $f(0) = 4$  and  $f(3) = 13$ .

14. \_\_\_\_\_

15. \_\_\_\_\_

16. \_\_\_\_\_

17. \_\_\_\_\_

18. \_\_\_\_\_

19. \_\_\_\_\_

20. \_\_\_\_\_

21. \_\_\_\_\_

22. \_\_\_\_\_

23. \_\_\_\_\_

24. \_\_\_\_\_

25. \_\_\_\_\_

26. \_\_\_\_\_

27. \_\_\_\_\_